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APR 26 2005

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT(S) Gelfman et al

SERIAL NO.: 10/605,251

FILING DATE: September 18, 2003

TITLE: Ferroelectric Single Crystal Resonator And Methods For Preparation And Use  
Thereof

**CERTIFICATE OF TRANSMISSION/ MAILING UNDER 37 C.F.R. 1.8**

I hereby certify that this correspondence, and any document(s) referred to as enclosed herein, is/are being facsimile transmitted to the USPTO or deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this day of April 26, 2005.

Leonid Khodor

Commissioner for Patents  
P.O. Box 1450,  
Alexandria, VA 22313-1450

Sir:

Submitted herewith is/are:

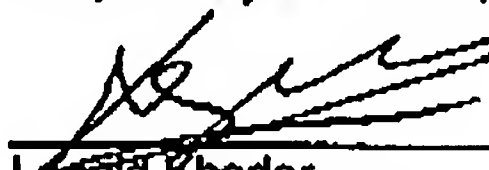
1. Transmittal Form;
2. Amendment and Response to the Office Action mailed from the U.S. Patent and Trademark Office on February 9, 2005 – 17 pages.

TRANSMITTAL FORM	Application Serial Number	10/605,251
	Filing Date	September 18, 2003
	First Named Inventor	Nia Gelfman
	Group Art Unit	1755
	Examiner Name	David M. Brunsman
	Attorney Docket No.	
	Patent No.	Not applicable
	Issue Date	Not applicable

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Check Attached <input type="checkbox"/> Copy of Fee Transmittal Form  <input checked="" type="checkbox"/> Amendment/Response <input checked="" type="checkbox"/> Preliminary  <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Letter to Official Draftsperson including Drawings [Total Sheets ____]  <input type="checkbox"/> Petition for Extension of Time  <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Form PTO-1449 <input type="checkbox"/> Copies of IDS Citations  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Sequence Listing submission <input type="checkbox"/> Paper Copy/CD <input type="checkbox"/> Computer Readable  <input type="checkbox"/> Statement verifying identity of above	<input type="checkbox"/> Copy of Notice to File Missing Parts of Application (PTO-1553)  <input type="checkbox"/> Request For Continued Examination (RCE) Transmittal  <input type="checkbox"/> Copy of Notice of Draftsperson's Patent Drawing Review  <input type="checkbox"/> Formal Drawings  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Executed Declaration and of Attorney for Utility or Design Patent Application  <input type="checkbox"/> Small Entity Statement  <input type="checkbox"/> CD(s) for large table or computer program  <input type="checkbox"/> Amendment After Allowance  <input type="checkbox"/> Request for Certificate of Correction  <input type="checkbox"/> Certificate of Correction (in duplicate)	<input type="checkbox"/> Notice of Appeal to Board of Patent Appeals and Interferences  <input type="checkbox"/> Appeal Brief (in triplicate)  <input type="checkbox"/> Status Inquiry  <input type="checkbox"/> Return Receipt Postcard <input type="checkbox"/> Certificate of First Class Mailing under 37 C.F.R. 1.8 <input checked="" type="checkbox"/> Certificate of Facsimile Transmission under 37 C.F.R. 1.8  <input type="checkbox"/> Additional Enclosure(s) (please identify below)  <input type="checkbox"/> Request for Corrected Filing Receipt <input type="checkbox"/> Copy of Filing Receipt with changes noted thereon.

CORRESPONDENCE ADDRESS	SIGNATURE BLOCK
Direct all correspondence to: Leonid Khodor 4920 Brainard Rd., Orange, OH 44022 Tel. No.: (440) 248-6024 Fax No.: (440) 248-6011	Respectfully submitted,  _____ Leonid Khodor Agent for Applicants 4920 Brainard Rd., Orange, OH 44022 Date: April 26, 2005 Reg. No. 53,115 Tel. No.: (440) 248-6024 Fax No.: (440) 248-6011

APR 26 2005

Serial No. 10/605,251  
Response to Office Action

- 1 -

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Geifman *et al.*

SERIAL NUMBER: 10/605,251

ART UNIT: 1755

FILING DATE: September 18, 2003

EXAMINER: David M. Brunsman

TITLE: FERROELECTRIC SINGLE CRYSTAL RESONATOR AND METHODS FOR  
PREPARATION AND USE THEREOFCommissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

## AMENDMENT AND RESPONSE

This paper is submitted in response to the Office Action, mailed from the U.S. Patent and Trademark Office on February 9, 2005, for which the period set for response ends on May 9, 2005. Applicants respectfully request entry of this Amendment and Response, reconsideration and withdrawal of all grounds of rejection and objection, and passage of the case to allowance.

Please amend the application, without prejudice, as follows:

**IN THE CLAIMS:**

Please amend claims 1-29 as follows:

1. (Withdrawn) A ferroelectric single crystal, consisting essentially of:  
the potassium tantalate; and  
the alkali metal or the group (V) metal;  
said alkali metal substitutes for from about 1% to about 3% of the potassium, said group (V) metal substitutes for a part of the tantalum; and  
said single crystal having cubic form of perovskite crystalline structure is essentially free of impurities and defects.
2. (Withdrawn) The single crystal according to claim 1, wherein said alkali metal is lithium, whereby forming a  $K_{(0.97 - 0.99)}Li_{(0.03 - 0.01)}TaO_3$  composition.
3. (Withdrawn) The single crystal according to claim 1, wherein said group (V) metal is niobium, said niobium substituting of up to about 40% of tantalum, whereby forming a  $KNb_{(0 - 0.4)}Ta_{(1 - 0.6)}O_3$  composition.